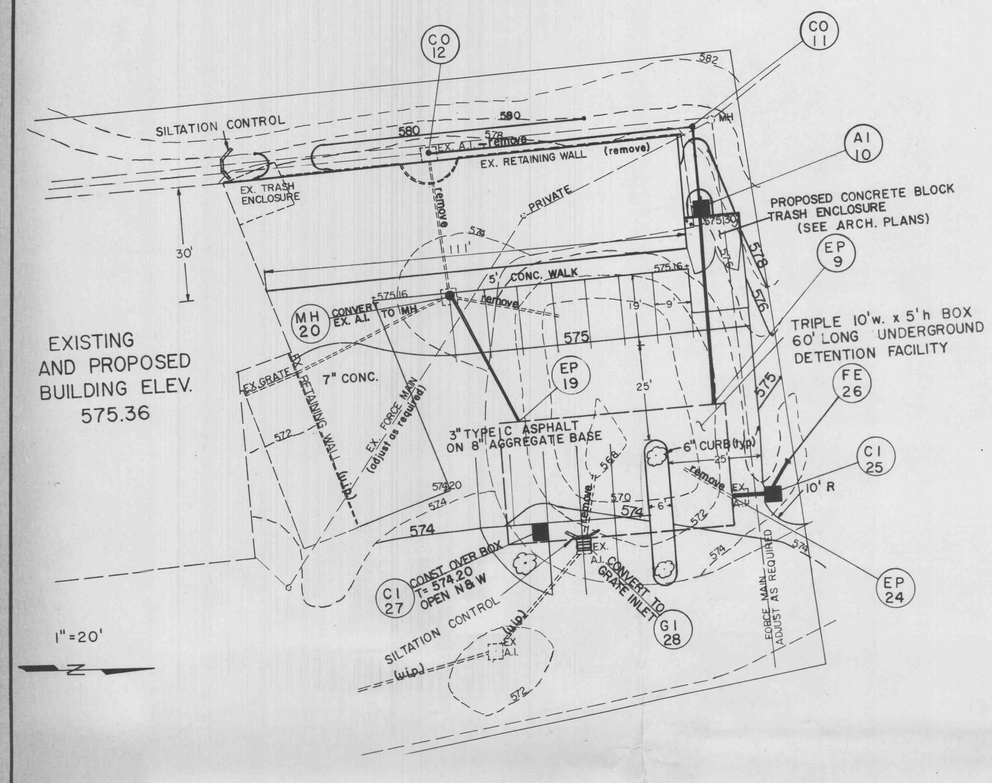
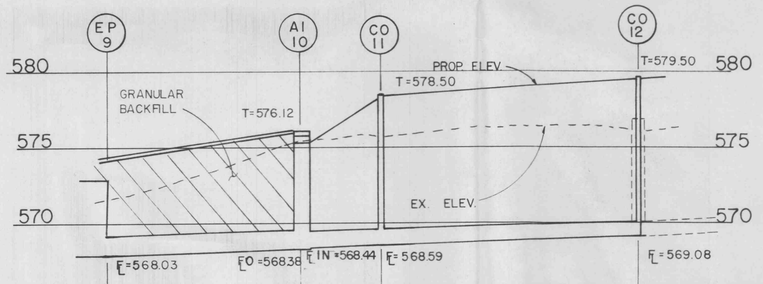
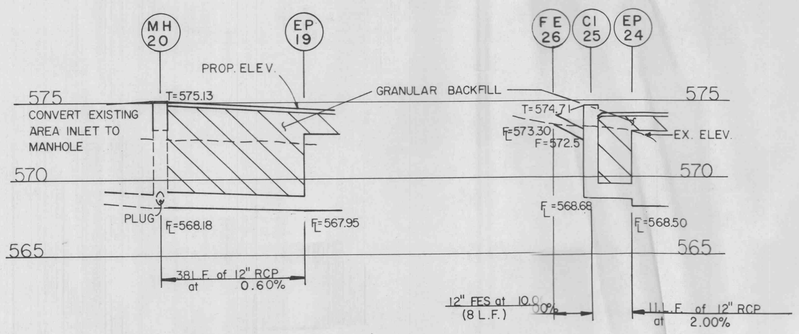
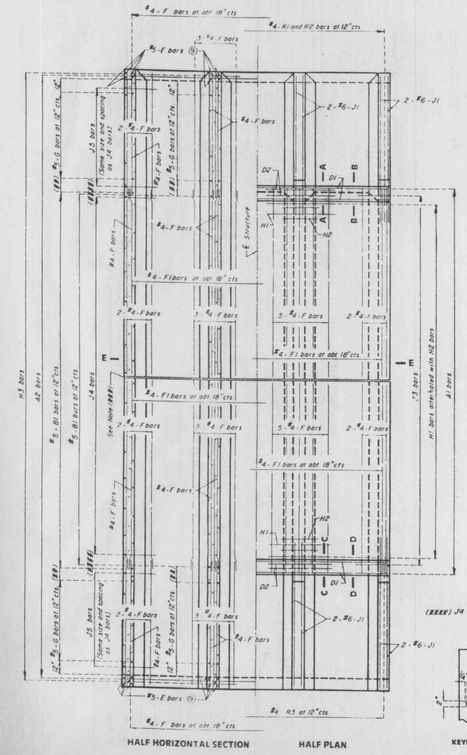








HALF HORIZONTAL SECTION

HALF PLAN

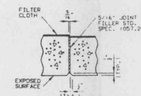
GENERAL NOTES:

FOR DIMENSIONS AND SIZE AND SPACING OF REINFORCING STEEL SEE SPECIAL BRIDGE SHEET AND STANDARD 703.74.

LAP ALL LONGITUDINAL BARS A MINIMUM OF 22" AT SPLICES

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1½" UNLESS OTHERWISE SHOWN

JOINT FILLER SHALL BE SECURELY STITCHED TO ONE FACE OF THE CONCRETE WITH NO. 10 GAGE COPPER WIRE OR NO. 12 GAGE SOFT DRAWN GALVANIZED STEEL WIRE

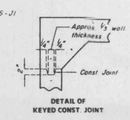


DETAIL OF TRANSVERSE JOINT THRU BARREL OF CULVERT

NOTE: USE A TRANSVERSE JOINT WHEN BARREL IS OVER 75' LONG BETWEEN HEADWALLS AND NOT ON ROCK.

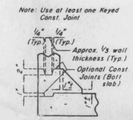
A FILTER CLOTH THREE FOOT IN WIDTH AND DOUBLE THICKNESS SHALL BE APPLIED TO THE EXTERIOR SURFACE OF THE BARREL AND HEADWALLS. THE MATERIAL SHALL BE CENTERED ON THE JOINT AND THE EDGES SEALED WITH A MASTIC OR WITH TWO SIDED TAPE. THE FILTER CLOTH SHALL BE A GEOTEXTILE MEETING THE FOLLOWING: MINIMUM TENSILE STRENGTH OF 80 LBS. (ASTM D-4632) MINIMUM TENSILE STRENGTH OF 80 LBS. (ASTM D-4632) APPARENT OPENING SIZE OF 50 TO 100 (ASTM D-4751). NO DIRECT PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING THE FILTER CLOTH.

USE ADDITIONAL TRANSVERSE JOINTS TO PROVIDE 50' MAXIMUM SPACING BETWEEN JOINTS. IF MORE THAN ONE TRANSVERSE JOINT IS REQUIRED, SEE STANDARD 703.74 FOR DETAILS.

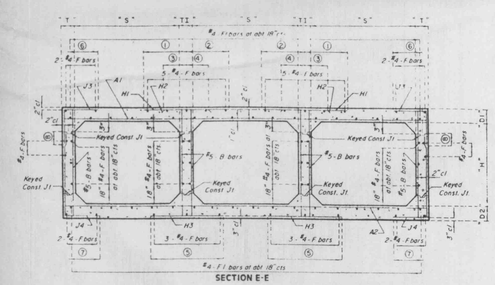


DETAIL OF KEYED CONST. JOINT

Note: Use at least one Keyed Const. Joint



DETAIL OF ALTERNATE KEYED CONST. JOINTS (BOTTOM SLAB ONLY)



SECTION E-E

T = 8"
T1 = 7.5"
S = 10'
H = 5'
D1 = 9.5"
D2 = 8.5"
H3 BARS = #4 @ 8"
J4 BARS = #4 @ 7 1/2"
A1 BARS = #5 @ 6"
H BARS = #4 @ 13"
J3 BARS = #4 @ 6 1/2"
F1 BARS = 22 - #4
(J DIMENSION = 9")
A2 BARS = #4 @ 9"

REINFORCING BAR LENGTHS

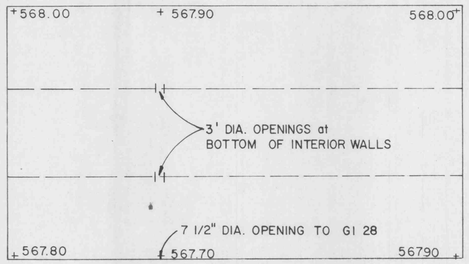
H1 ① and ② K1
H2 ③ and ④ K1
H3 ⑤ 0.65L
J3 ⑥ and J4 ⑦ - 0.3L

K = Coefficient shown below
L = "S" + "T"
H3 bars to be centered on interior walls.
J3 ⑥ - 2'-3"

✱ Continue H1 bars across center span with an additional F bar in middle of center span.

FOR DESIGN FILL SEE DATA SHEET	"S" 8' and 9'				10' and 11'				12' and 13'				14' and 15'			
	①	②	③	④	①	②	③	④	①	②	③	④	①	②	③	④
12"	.54	✱	.31	.39	.48	✱	.28	.33	.42	✱	.25	.29	.36	✱	.25	.26
13" thru 18"	.48	✱	.30	.34	.41	✱	.28	.28	.39	✱	.25	.26	.34	.41	.25	.25
18" thru 2'-0"	.44	✱	.30	.30	.38	✱	.28	.28	.36	✱	.25	.25	.32	.39	.25	.25
2'-1" thru 3'-0"	.40	✱	.30	.30	.35	✱	.28	.28	.34	.39	.25	.25	.31	.37	.25	.25
3'-1" thru 4'-0"	.35	✱	.30	.30	.32	.37	.28	.28	.32	.37	.25	.25	.30	.36	.25	.25
4'-1" thru 5'-0"	.32	.37	.30	.30	.30	.35	.28	.28	.30	.35	.25	.25	.30	.35	.25	.25
5'-1" and over	.31	.35	.30	.30	.30	.34	.28	.28	.30	.34	.25	.25	.30	.34	.25	.25

BOX FLOOR ELEVATIONS



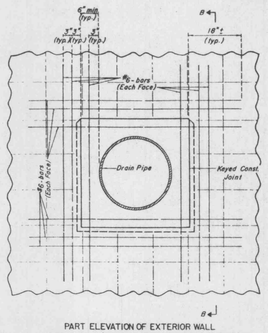
GBA

GEORGE BUTLER ASSOCIATES, INC.
Engineers / Architects / Landscape Architects / Planners
Kansas City, Mo. / Lenexa, Ks. / O'Fallon, Mo. / Ames, Ia. / Oklahoma City, Ok.

DATE: 3-28-95	
DESIGN BY: J.J.C.	
DRAWN BY: J.J.C.	
PROJECT NO: 7171	
SHEET NO.	TOTAL SHEETS
C2	C4

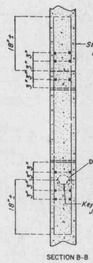
TRUE VALUE HARDWARE ADDITION
CONSTRUCTION PLAN
O'FALLON, MO.

REVISIONS	BY	DATE
Siltation Control / Trash Enclosure	GJC	5/10/95



PART ELEVATION OF EXTERIOR WALL
(PIPE DIAMETER = 24" OR MORE) (WALL THICKNESS = 8" TO 12")

Note: Cut plan reinforcing bars to clear pipe block-out.



SECTION B-B

NOTES:

Dashed bars represent plan reinforcement.

Solid bars indicate additional #6 bars.

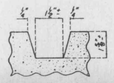
Bar cover from face of concrete = 1½" clear.

See road plans for location, size and type of pipe.

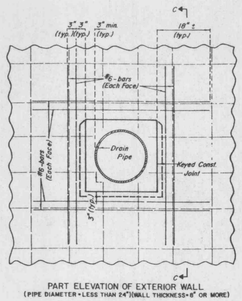
Place ⅜" joint filler around reinforced concrete pipe and emulsified asphalt around corrugated metal pipe at pipe inlet.

The block-out may be eliminated at contractors election. If block-out is eliminated, reinforcement shall be as shown except plan reinforcement may be bent to clear pipe.

Additional reinforcement required for block-out is not included in estimated quantities. No separate payment will be made for additional reinforcing required.

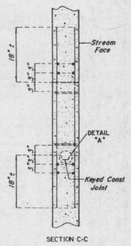


DETAIL "A" (KEYED JOINT)



PART ELEVATION OF EXTERIOR WALL
(PIPE DIAMETER = LESS THAN 24" (WALL THICKNESS = 8" OR MORE)

Note: Extend plan reinforcing bars into pipe block-out as shown.



SECTION C-C

Special Notes:

1. Wingwall and headwalls shall not be constructed.

2. Walls shall be constructed on each end of the box. Reinforcement and wall width shall match exterior walls.

3. A 36" diameter opening shall be constructed in the low point of each interior wall.

STATE OF MISSOURI
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